that this moist air existed as a stratum a little way above the ground, and that it descended to the earth because of the lower temperature in the eclipse area, as compared with the areas in front and rear.

As the moon cuts off the heat of the sun from the earth and its atmosphere quite rapidly during an eclipse and as totality itself lasts only from one to five minutes, the atmospheric changes as to pressure, temperature, moisture, and wind go on so rapidly, even though they be but slight, that we need very sensitive apparatus in order to measure them accurately. The temperature of the dry and wet thermometers follows the corresponding temperature of the air too sluggishly to be of much value in these delicate researches unless the thermometers are thoroughly well ventilated or whirled. Anemometers are notoriously sluggish. In general, we think that the diminution of the vertical convection current due to the cooling of the ground suffices to explain the diminution of the wind, while the subsequent warming of the ground and renewal of convection currents should explain the gusts that followed. The diurnal variation of the wind must, according to the simplest laws of hydrodynamics, produce a corresponding diurnal variation in the barometric pressure.

LANTERN SLIDES FOR LECTURES.

In order to respond to the increasing demand for lantern slides for the use of Weather Bureau officials in their lectures, the Chief of Bureau has ordered that such be prepared and sent to those who are giving lectures that require such illustrations. Many of the teachers and others who receive the MONTHLY WEATHER REVIEW doubtless have seen or perhaps possess such slides, and the committee appointed by the Chief to make the selection would be glad to hear of any that are esteemed as particularly effective or instructive. Those who desire slides on particular subjects or have any suggestions to make relative to the proposed series are invited to submit their views. It will, of course, require some months to complete the execution of this work.

POGONIP.

In the MONTHLY WEATHER REVIEW for 1894, page 76, the Editor has given some account of that mist or fog of frozen vapor that is called by the Indian name pogonip. It is there spoken of as recurring frequently in the southeastern part of White Pine County, Nev.; but the following item from Ainsley's Magazine, as reprinted in the Washington Evening Star of October 27, 1900, gives further interesting information.

This phenomena occurs most frequently in the northern part of Colorado, in Wyoming, and occasionally in Montana.

About two years ago a party of three women and two men were crossing North Park in a wagon in the month of February. The air was bitterly cold, but dry as a bone and motionless. The sun shone with almost startling brilliancy. As the five people drove along over the crisp snow they did not experience the least cold, but really felt most comfortable, and rather enjoyed the trip. Mountain peaks 50 miles away could be seen as distinctly as the pine trees by the roadside.

Suddenly one of the women put her hand up to her face and remarked that something had stung her. Then other members of the party did the same thing, although not a sign of an insect could be seen. All marveled greatly at this. A moment later they noticed that the distant mountains were disappearing behind a cloud of mist. Mist in Colorado in January. Surely there must be some mistake. But there was no mistake, because within ten minutes a gentle wind began to blow, and the air became filled with fine particles of something that scintillated like diamond dust in the sunshine. Still the people drove on until they came to a cabin where a man signaled to them to stop. With his head tied up in a bundle of mufflers, he rushed out and handed the driver a piece of paper, on which was written: "Come into the house quick, or this storm will kill all of you. Don't talk outside here."

Of course no time was lost in getting under cover and putting the horses in the stables. But they were a little late, for in less than an hour the whole party was sick with violent coughs and fever. Before the next morning one of the women died with all the symptoms of pneumonia. The others were violently ill of it, but managed to pull through after long sickness.

"I saw you people driving along the road long before you got to my house, and I knew you did not know what you were driving through," said the man, as soon as the surviving members of the party were able to talk. "That stuff you saw in the air was small particles of ice, frozen so cold that it goes clear down into the lungs without melting. If one were to stay out a few hours without covering his head he would surely die. One winter about eight years ago a whole Indian tribe across the Wyoming line died from its effects. The Indians are more afraid of it than they are of rattlesnakes, and call it the 'white death.'"

THE LONG RECORD OF MR. S. P. DAVIDSON.

Mr. B. L. Waldron, Observer Weather Bureau, Columbus, Ohio, writes that Mr. Samuel P. Davidson, of London, Ohio, has maintained a complete record of temperature and rainfall, frosts, and snowfall since 1852. The whole record was made by himself, and his thermometers have always hung on the same north porch. Mr. Davidson is now eighty-eight years of age—it is to be hoped that the records will be maintained by others for many years to come.

Mr. Waldron has forwarded to the Weather Bureau some newspaper clippings and data compiled from Mr. Davidson's record, and it is to be hoped that the complete manuscript will be deposited for safe keeping in the fire-proof vaults of the Weather Bureau.

In utilizing such records for the investigation of the question of the secular change of climate one should always remember that thermometers are always changing their zero points, and rain gages are greatly affected by such changes in their surroundings as increase or diminish their exposure to the wind. Even the records of frost will vary with the nature of the soil and the plant and the sheltering influence of the forests.

THE WEATHER OF THE MONTH.

By ALFRED J. HENRY, Professor of Meteorology.

CHARACTERISTICS OF THE WEATHER FOR OCTOBER.

In many respects the weather of the month was typical of summer conditions. The circulation of the air was generally feeble, temperatures were above the seasonal averages and the rainfall was abundant in the majority of districts. A number of areas of low pressure formed in the Plateau region or moved in from the north Pacific, only to dissipate in the upper Mississippi and Missouri valleys. It was eminently a month of inaction on the part of the lows. Two areas of high pressure of marked character moved across the country. The first appeared over the northern Plateau region on the morning of the 6th, moved to the middle Rocky Mountain region by the morning of the 7th and to the Mississippi Valley by